

Amendments to the Claims

1. [currently amended] A process for separating protein and/or carbohydrate components from insoluble fiber-containing components of a vegetable product which comprises the steps of:

(a) mixing said vegetable product with water to form a slurry;

(b) filtering the slurry by impeller filtration to form a predominately liquid filtrate and a moist solid residue wherein said step of impeller filtration comprises continuous filtration of the slurry by a rotating paddle impeller that both propels and pulses the incoming slurry against the inside of a tubular filter screen; and

(c) removing water from the solid residue by a compression filtration means.

2. [original] The process of claim 1 wherein said step of impeller filtration comprises continuous filtration of the slurry by auger driven passage through a tubular filter.

3. [canceled]

4. [previously amended] The process claim 1 wherein the step of compression filtration comprises continuous filtration by passing the solid residue between opposed filter belts which gradually and progressively compress the solid residue as the solid residue passes between them.

5. [previously amended] The process of claim 1 wherein the step of compression filtration comprises continuous filtration by passing the solid residue through a screw press.

6. [previously amended] The process of claim 1 wherein the step of compression filtration comprises filtration of discrete portions of the solid residue in compression filtration means comprising a compression chamber which has a filter media bounding a portion of the chamber by placing the solid residue in the chamber and compressing the solid residue against said portion.

7. [previously amended] A process as claimed in claim 1 in which the predominantly liquid filtrate also contains small particles of solid high in protein and/or carbohydrate.

8. [previously amended] A process as claimed in claim 1 in which the vegetable product is a defatted oilseed meal.

9. [canceled]

10. [previously amended] A process as claimed in claim 1, in which the vegetable product is oil-extracted canola flake from a solvent-based oil-extraction process.

11. [original] A process as claimed in claim 10, in which the predominantly liquid filtrate contains particles of cell meat.

12. [currently amended] Separation apparatus for treating a solid product with water soluble components, which comprises in combination:

(a) means for mixing the product with water to form a slurry;

(b) an impeller type filter to separate the slurry into a filtrate and a moist retentate, wherein said impeller type filter comprises a rotating paddle impeller and tubular filter media housing, the rotating and vibrating paddle impeller closely fitting to the filter media, and wherein said impeller propels and pulses the slurry against an inside surface of the filter media; and

(c) compression filter means to remove further water from the moist retentate.

13. [original] The apparatus of claim 12 wherein said impeller type filter comprises a tubular filter media housing an auger impeller closely fitting to the filter media.

14. [canceled]

15. [canceled]

16. [previously amended] The apparatus of claim 12 in which the impeller type filter media comprises a mesh with apertures which permit passage of fine particles comprising at least one of protein and carbohydrate.

17. [previously amended] The apparatus of claim 12, wherein said impeller type filter has a filter media which is a mesh having a minimum aperture of about 75 microns.

18. [canceled] The apparatus of any of claims 13-16 wherein said filter media has a minimum aperture of about 150 microns.

19. [previously amended] The apparatus of claim 12, wherein said impeller type filter has a filter media which is a mesh having a maximum aperture of about 2500 microns.

20. [previously amended] The apparatus of claim 12, wherein said impeller type filter has a filter media which is a mesh having a maximum aperture of about 250 microns.

21. [previously amended] The apparatus of any of claim 12, wherein said compression filter means comprises at least one pair of filter belts which are oriented so as to convey the solid residue while gradually and progressively compressing the solid residue in the direction of movement of the solid residue between the pair of filter belts.

22. [previously amended] The apparatus of claim 12 wherein the compression filter means comprises a screw press.

23. [previously amended] The apparatus of claim 12 wherein said compression filter means comprises a compression chamber, a portion of which is bounded by filter media and a piston adapted to be received within the compression chamber to compress solid residue within the compression chamber against the filter media.